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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,573	03/29/2004	Mark Thomas	6488P008	3693

8791 7590 02/02/2007  
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EXAMINER
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NEILS, PEGGY A

ART UNIT	PAPER NUMBER
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2885

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/02/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/812,573	<b>Applicant(s)</b> THOMAS ET AL.	
	<b>Examiner</b> Peggy A. Neils	<b>Art Unit</b> 2885	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 November 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 and 64-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-18, 21, 22, 64-73 is/are rejected.
- 7) ☒ Claim(s) 11, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to claims 1-22 and 64-73 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7, 9, 12, 15, 18, 64-68 and 73 are rejected under 35 U.S.C. 102(b) as being anticipated by Ellis, Jr.

Ellis, Jr. shows an illumination device mounted on a wheel. As shown in Figures 1 and 2, the device 10 includes a light source 38 and means 58 for positioning the light source within a rotating reference frame of a wheel 12. As shown in Figure 1, light rays 70 are reflected within areas of the wheel and then outward. The structure of the housing for the lighting device is such that the light is only directed towards the wheel frame and not outward away from the wheel. The lamp appears to be a filament-based light source (claims 2 and 67). The lighting device is secured at the axle 18 for the wheel, which is readable as the wheel center cap (claims 3, 7, 15, 68, 73) and also a portion of the wheel (18). As shown, a strap 60 may be used to secure the device. Light is reflected off the tire rim 72 and outwardly therefrom (claim 4). The structure of the housing

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includes channel 34, which is readable as a shield/shade (claims 9 and 66) or optical element directing the light (claim 12) having an aperture to emit light (claim 65).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 6, 8, 13, 14, 16, 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis, Jr.

Regarding claims 16 and 17, Ellis, Jr. shows spokes 16 extending from the center axle 18 with the lighting device being wedge in around the spokes (see column 3, beginning at line 13). The spokes extend to tire rim 72. The exact location of the light on the wheel is considered a design choice, which would depend on features such as size and ease of access (also applies to claims 13 and 14). Ellis, Jr. teaches the critical feature of directing light toward the wheel and not directly outward. Regarding claims 6 and 8, the wheel of Ellis, Jr. is for a bicycle and would not include a hubcap. However, on an automobile the hubcap would be at the center of wheel, which is where the device of Ellis, Jr. is positioned on the bicycle. Therefore, it would be obvious to one skilled in the art to position the lighting device on a hubcap at the center of a wheel if the device were used on an automobile as Ellis, Jr. teaches positioning the device at the center of a wheel. Claim 5 sets forth that the reflective surface of the wheel is coated. Ellis, Jr. shows a typical bicycle wheel that would have aluminum tire rim., i.e. the material in and

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of itself having reflective properties. To coat the surface to make it reflective is considered a design choice as it represents an unnecessary cost when the material of the rim itself is reflective.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis, Jr. in view of Hamilton.

Hamilton shows a lighting device for a wheel which includes a reflector 6 and conical shielding element 12 which functions as an additional reflector. Ellis, Jr. states that container 26 may be constructed of plastic, wood or paper (non-reflective materials). Ellis, Jr. does not actually mention the material of channel 34. It would have been obvious to one skilled in the art that channel member 34 could be made from a reflective material or coated with a reflective material in the same manner as taught by Hamilton because the light of Ellis, Jr. is positioned back from opening 36 and therefore it would be desired to redirect any emitted light towards the opening to increase the amount of light being emitted by device 10.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis, Jr. in view of Brown.

Ellis, Jr. shows one light bulb in the lighting device. Brown teaches that it is known in the art to use multiple lighting to illuminate a bicycle wheel. It would have been obvious to one skilled in the art that Ellis, Jr. could be modified to include plural lamps in the same manner as taught by Brown because Brown is also directed to illuminating a bicycle wheel and additional light sources would provide enhanced illumination. To

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have the multiple lamps independently operated would be a design feature as that requires more expense and complexity.

Claims 69, 70-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis, Jr. in view of Hung.

Hung teaches that it is known in the art to use an optical element 7 to transmit light along a tire wheel. It would have been obvious to one skilled in the art that Ellis, Jr. could be modified to include a optical element as taught by Hung to transmit the light to the tire rim because the optical element provides a more focus concentration of light and would enhance illumination and both references are directed to illuminating a tire wheel.

#### ***Allowable Subject Matter***

Claims 11, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claim 11 is considered to set forth allowable subject matter because the claim sets forth that a light projector directs light emitted outside the wheel to the visible surface of the wheel. This combination of limitations was not shown or suggested by the prior art. Claim 19 and 20 are considered to set forth allowable subject matter because Claim 19 sets forth a waveguide receiving light from the light source directed outside the wheel and directing the light to a visible surface of the wheel. Claim 20


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depends on Claim 19. This combination of limitations was not shown or suggested by the prior art.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Olds, et al is cited of interest.

Any inquiry concerning this communication or earlier communications should be directed to Examiner Neils at (571) 272-2377 on a Monday or Thursday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong (James) Lee can be reached on (571) 272-7044.

  
Stephen Husar  
Primary Examiner